

REMARKS

Reconsideration of this application as amended is respectfully requested.

In the Office Action, claims 1-26 remain pending. Claims 1-26 have been rejected. In this response, no claim has been canceled. Claims 1, 8-9, 16-17, 22, and 24-26 have been amended. In addition, a portion of the specification has been amended. No new matter has been added.

The Examiner has rejected claims 8, 16 and 24 under 35 U.S.C. § 112, first paragraph, as failing to comply with the enablement requirement. Claims 22 and 23 have been rejected under 35 U.S.C. § 112, second paragraph. In view of the foregoing amendments, it is respectfully submitted that the rejections have been overcome. The support of the amendments can be found on pages 15-16 of the present application.

The Examiner has rejected claims 1-5, 7, 9-13, 17-21, 25 and 26 under 35 U.S.C. §102(a) as being anticipated by ITU-T G.664 ("ITU '664 article"). Claims 1, 6, 9, 14 and 15 have been rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Publication No. 2002/0024690 to Iwaki, et al., ("Iwaki"). In view of the foregoing amendments, it is respectfully submitted that the present invention as claimed includes limitations that are not disclosed by the cited references.

Specifically, for example, independent claim 1 as amended recites as follows:

1. A method performed by a node of a wavelength multiplex optical network, the method comprising:
 - detecting at a node that at least a portion of a first unidirectional path of an optical circuit is down, the first unidirectional path being originated from a first terminating node; and
 - signaling the first terminating node by removing at least a portion of light of a second unidirectional path in an opposite direction of the first unidirectional path of the optical circuit, to indicate a path between the node and the first terminating node is down, wherein in response to lost of the at least a portion of light, which is used as an indication of lost of signal (LOS), the first terminating node is configured to provision

another path to reach the same destination of the first unidirectional path, bypassing at least one node of the first unidirectional path.

(Emphasis added)

Independent claim 1 includes limitations of detecting at least a portion of a unidirectional path (e.g., certain wavelengths of a light path) is down and in response, signaling a terminating node that originates the path (e.g., source node) by removing at least a portion of the light. When the source node receives the signal by not seeing the light of the corresponding wavelength of the path, the source node can provision another path (e.g., a redundancy path or a protection path) to reach the same destination of the failed path, bypassing at least one node of the failed path (e.g., the node that malfunctions).

That is, the present invention as claimed is related to provision another path to go around the failed path using the lost of the light as a signal, similar to the lost of signal (LOS) used in a conventional system which is specifically used to notify another node that a path is down and another path is requested. In this embodiment, since there is no need to specifically generate additional signal for the purposes of signaling the source node to provisional another path, the speed to provision a new path will be greatly improved. It is respectfully submitted that these limitations are absent from the cited references.

Rather, both references are related to shutting down the light of a fiber that is broken for safety reasons, instead of provisioning another path in place of the failed path as recited in claim 1.

For example, the ITU '664 article states:

“APR procesures are required in order to avoid hazards from laser radiation to human eye or skin and potential additional hazards such as temperature increase (or even fire) caused by locally increased absorption to connector pollution or damage.

...

In order to ensure that the power levels emitting from broken or open fibre connections are at safe levels, it is necessary to reduce the power not only on the main

optical signal sources but also on all pump-lasers employed, including the backward pumping lasers.” See, e.g., the ITU ‘664 article, page 5.

Similarly, Iwaki discloses using ALS (automatic laser shutdown) techniques to cut off the leaked laser light resulted from the failed path. See, e.g., paragraphs [0005] – [0008] and [0022] – [0031] of Iwaki.

In contrast, the present invention as claimed is related to provide a redundancy or protection path which is provisioned in response to a path failure, where the path failure is detected by detecting lost of light as a signal that normally has to be transmitted specifically for such a purpose in a conventional system. None of the cited references, individually or in combination, discloses or suggests the limitations set forth above. Therefore, it is respectfully submitted that independent claim 1 as amended is not anticipated by the ITU ‘664 article and Iwaki.

Similarly, independent claims 9, 17, and 25-26 as amended include limitations similar to those recited in claim 1. Thus, for reasons similar to those discussed above, it is respectfully submitted that independent claims 9, 17, and 25-26 as amended are not anticipated by the ITU ‘664 article and Iwaki.

Given that the rest of the claims depend from one of the above independent claims, for reasons similar to those discussed above, it is respectfully submitted that the rest of the claims are not anticipated by the ITU ‘664 article and Iwaki. Withdrawal of the rejections is respectfully requested.

In view of the foregoing, Applicant respectfully submits the present application is now in condition for allowance. If the Examiner believes a telephone conference would expedite or assist in the allowance of the present application, the Examiner is invited to call the undersigned attorney at (408) 720-8300.

Please charge Deposit Account No. 02-2666 for any shortage of fees in connection with this response.

Respectfully submitted,

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